

### **Abstract of Disclosure**

At least one wafer is exposed to a treatment environment in a treatment chamber at a treatment pressure. The backside of the wafer is exposed to a heat transfer gas for thermally coupling the wafer to the support arrangement. Control of the heat transfer gas provides a fixed flow to the support arrangement enabling thermal coupling with the support arrangement. A first portion of the heat transfer gas leaks between the support arrangement and the wafer. Responsive to a backside pressure signal, a second portion of the fixed flow is released in a way which maintains the backside pressure at a selected value. In one feature, effluent flow control is used for controllably releasing the second portion of heat transfer gas. In another feature, the second portion of heat transfer gas is released into the treatment chamber. Dilution control and multi-wafer configurations are described.